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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/629,308

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Zhong Zhang

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EXAMINER

GEMBEH, SHIRLEY V

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/629,308	Applicant(s) ZHANG ET AL.	
	Examiner SHIRLEY V. GEMBEH	Art Unit 1618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 May 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,6,8-12,25 and 26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,6,8-12,25 and 26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>1/15/08;7/15/08</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The response filed on **5/2/08** presents remarks and arguments to the office action mailed on **11/5/07**. Applicant's request for reconsideration of the rejection of claims in the last office action has been considered.

Rejections and/or objections not reiterated from previous office actions are hereby withdrawn. The following rejections and/or objections are either reiterated or newly applied. They constitute the complete set presently being applied to the instant application.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Information Disclosure Statement

The information disclosure statement (IDS) submitted on 1/15/08 and 7/15/08 are acknowledged and have been reviewed.

Status of claims

Claims 1, 6, 8-12 and 25-26 are pending.

Claims 2-5, 7 and 13-24 are cancelled and claims 1, 6, 10 and 12 are amended.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the

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art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1, 6, 8-12 and 25-26 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. This is a new matter rejection.

Independent claim 1 recites a limitation narrower than that specified in the specification. The claim recites "said excipients not more than 15%". However, page 8 of the instant specification specifically recites at lines 9-10, "less than about 15% or about 20% w/v", there is no recitation in the specification of no more than 15% as claimed. Therefore a new matter rejection is appropriate.

Claims 1, 6, 8-12 and 25-26 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. This is a new matter rejection.

The recitation of not more than 1% w/v is not taught, the specification teaches ranges, wherein the range is from less than about 3%. Not more than 1% as recited is not taught as claimed. See page 7 lines 26-30.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 6, 8-12 and 25-26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is unclear what is being claimed in the instant claim 1. The claim recites not more than 15 % of excipients. What is the lower limit? Could it be interpreted as the aqueous solution comprises 1% propofol and 99% excipients?

It is suggested that the claim be amended to read as “wherein said excipients comprises not more than 15% w/v of poloxamer, polyethylene glycol and lipid...”.

Maintained Claim Rejections - 35 USC § 103

Claims 1-6 and 8-14 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Glen et al US 4,452,817 in view of Meadow US 7,166,303.

Applicant argues that the Glen reference teaches at best a propofol composition which includes 10 g pf propylene glycol equating to 10-3% w/v and 10.3% poloxamer. That the total weight of excipients is 20.6% which is well above the limitation “not more than 15%”.

Applicant further argues that the Meadows reference fails to teach the instant claimed invention and that Meadows asserts combinations with poloxamer. After consideration the Meadow reference is only persuasive with regard to the mixture of poloxamer.

In response, the Glen reference is being maintained, as it teaches the recited amount of propofol as 1%, the amount of poloxamer 188 as 10% and polyethylene glycol as 10 %. There is not much of a difference in the range. It is the Examiners position that the range is within the purview of the skilled artisan to optimize the composition parameters. Especially wherein the disclosure of the prior art makes obvious the use of a wide range of the poloxamer from 2-30%. See col. 2, lines 49-50 and the same rationale is supported for the use of polyethylene glycol. See preceding lines 50-53.

There is no indication of oil; in the formulation therefore it is assumed that there is less than 1% of oil for the embodiment recited at lines 46-53.

Claims 1-6 and 8-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Glen et al US 4,452,817 in view of Meadow US 7,166,303.

Glen et al. teach instant claims 1, 4 and 14(a), an aqueous formulation comprising: 2, 6-diisopropylphenol (propofol) 1-2 %. See col. 7 lines 17-24 of said formulation as required of claim 1, block-copolymer PLURONIC F68- commonly known as Poloxamer 188 or P188 (2-30%) (inclusive of claimed ranges) and PEG to be from 2-30% (inclusive of claimed ranges) as in claims 1 and 25, please note the 0% of propylene glycol (non added). Note citric acid (see col. 3, lines 7-10) as in claim 6. See col. 3, lines 30-31). The formulation further does not support microbial growth as it comprises an antimicrobial excipient (sodium metabisulfate) (see col. 3, lines 3). (interpreted as to inhibit bacterial growth) as required by instant claim 9. As to instant

claim 8 the agents or compounds are the same therefore it could be inferred that the particle size are an inherent property of the agent.

With regard to instant claim 10, the formulation is administered to non-humans; see col. 1, lines 38-40 and col. 3, lines 40-54.

As to instant claim 11, the formulation comprises of citric acid, a pH modifier, see col. 3, lines 9-13. With regard to the solution substantially free of antimicrobial agent, Glenn teaches that the composition may optionally comprise preservatives. Thus, teaching that inclusion of a preservative is not necessary. See col. 2, lines 66-65.

The Glen reference fails to teach that the formulation is equivalent to that of a commercial lipid base anesthetic product wherein the bioequivalent is demonstrated, and also fail to teach in part that wherein propylene glycol is 1%. The Meadow reference is applied below to show that lipid base Diprivan is compared with other formulation of propofol in animals.

The meadow reference teaches with regard to instant claim 9(a), that the aqueous formulation does not support microbial growth see col. 7, lines 39. Further, Meadows et al. teach that the formulation is equivalent to that of Diprivan a lipid formulation base is compared in animals (Wistar rats), at col.13, lines 34-col 14, lines 23-67 as required by instant claim 10(i).

Even though both cited references do not teach the claimed range of propylene glycol, it is the Examiners position that once the concept is known or available, one of ordinary skill in the art would be motivated to find the optimum working range to apply. Also it has been held that where the general conditions of a claim is disclosed in the

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prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation. See *In re Aller*, 220 F.2d 454 105 USPQ 233,235 (CCPA 1955). The addition of polyethylene glycol is used in the prior art. Finding the optimal working range of each agent is within the purview of the skilled artisan. Also in order to be patentable, a novel form of an old compound must possess a new utility or a utility of a different type, mere improvement in properties does not render a novel form of an old compound. In *re Weijland*, 587 O.G 3, 33 C.C.P.A. 837, 154 F.2d 133:1946 C.D. 175 69 USPQ 86; *Ex parte Hald*, Paper 15 in U.S. Patent 2,647, 145.

Thus, the claimed invention is considered *prima facie* obvious to make and use as claimed herein.

Maintained Double Patenting

Claims 1, 6, 8-12 and 25-26 remain provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1,3,17-50 of U.S. Patent Application No. 10/677,747. Although the conflicting claims are not identical, they are not patentably distinct from each other. The reasons are as follows:

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Applicant's request that the Double Patenting rejection be held in abeyance until it is made permanent is noted but will be maintained in this Office Action and future Office Actions until withdrawn.

No claim is allowed.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SHIRLEY V. GEMBEH whose telephone number is (571)272-8504. The examiner can normally be reached on 8:30 -5:00, Monday- Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MICHAEL HARTLEY can be reached on 571-272-0616. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael G. Hartley/
Supervisory Patent Examiner, Art Unit 1618

/SVG/
8/7/08